

**REMARKS**

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the remarks and enclosures herein.

Claims 14-17 were rejected under 35 U.S.C. §112, first paragraph, because the specification allegedly does not provide enablement for all compounds which inhibit the reductase activity of 11-Beta-hydroxysteroid dehydrogenase I in neural tissue. The rejection is respectfully traversed.

Accompanying this response is the Declaration of Brian R. Walker and Jonathan R. Seckl, both of whom are inventors of the present application (this Declaration is presently unsigned; an executed Declaration will be forwarded shortly).

As noted in the Declaration, the Figures of the present application provide doses of an inhibitor of the reductase activity of 11-Beta HSD1 from which the skilled artisan can make and use the claimed invention, without undue experimentation. Additionally, as to inhibitors of 11-Beta HSD1, the article by Monder and White (which accompanies the Declaration), in Table IV at pages 196-198 provides a rather lengthy list of inhibitors of 11 $\beta$ -hydroxysteroid dehydrogenase, such that contrary to the Office Action, it is respectfully asserted that the skilled artisan understands compounds that "inhibit the reductase activity of 11-Beta-hydroxysteroid dehydrogenase I" and would readily understand how to use such compounds in the methods of the present invention without any undue experimentation.

Furthermore, in addition to those mentioned in the reference above, those documents which were cited in the prosecution of the parent application, U.S. Application Serial Number 09/029,535, now U.S. Patent 6,521,267, also show inhibitors and modes of administration, such as Walker et al., "Carbenoxolone Increases Hepatic Insulin Sensitivity in Man: A Novel Role for 11-oxosteroid Reductase in Enhancing Glucocorticoid Receptor Activation," J. Clin. Endocrinology and Metabolism 80 (11): 3155-59 (1995). Thus, in the art, carbenoxolone and the lengthy list in Monder and White were known inhibitors. Gomez-Sanchez et al., "Central hypertensinogenic effects of glycyrrhizic acid and carbenoxolone," Am J Physiol 263 (6 Pt 1): E1125-E1130 (1992) showed that licorice, glycyrrhizic acid, and carbenoxolone were known inhibitors, as well as the infusion of glycyrrhizic acid and carbenoxolone into the lateral ventricle of the brain of the rat at doses less than that which has an effect when infused subcutaneously, produces hypertension, showing that such compounds were administered subcutaneously, orally,

and by infusion; *see also* Whorwood et al., "Licorice inhibits 11 beta-hydroxysteroid dehydrogenase messenger ribonucleic acid levels and potentiates glucocorticoid hormone action," *Endocrinology* 132 (6): 2287-92 (1993) (copy of Abstract attached). Even further still, Homma et al., "A Novel 11 $\beta$ -Hydroxysteroid Dehydrogenase Inhibitor Contained in Saiboku-To, a Herbal Remedy for Steroid-dependent Bronchial Asthma," *J. Pharm Pharmacol* 46:305-309 (1994) (copy attached), Zhang et al., "Inhibition of 11 $\beta$ -Hydroxysteroid Dehydrogenase Obtained from Guinea Pig Kidney by Furosemide, Naringenin and Some Other Compounds," *J Steroid Biochem Molec Biol* 49(1):81-85 (1994) (copy attached), and Lee et al., "Grapefruit juice and its flavenoids inhibit 11 $\beta$ -hydroxysteroid dehydrogenase," *Clin Pharmacol Ther* 59:62-71 (1996) (copy attached), evince even more inhibitors that can be administered in known ways (both in terms of doses and routes of administration), such as flavenoids, which "are sold in tablet form in health food stores and drug stores," and herbs or constituents of herbs. Additionally, note Morris et al., "Endogenous 11 beta-hydroxysteroid dehydrogenase inhibitors and their role in glucocorticoid Na<sup>+</sup> retention and hypertension," *Endocr Res* 22(4):793-801 (1996) shows progesterone metabolites as inhibitors, and that progesterone is also a substance that can be administered – both in terms of doses and routes of administration - without undue experimentation.

The Examiner is also invited to review Appendix C to the Declaration which consists of two pages of a presentation originally provided to the Patent Office during the October 2, 2001 Interview during the prosecution of U.S. Application Serial Number 09/029,535, now U.S. Patent 6,521,267, and which was provided to the present Examiner during the March 10, 2004 Interview.

Appendix C depicts results obtained with various known compounds, including chenodeoxycholic acid and frusemide in addition to carbenoxolone, that inhibit 11B-reductase in intact primary neurons and adipocytes. Therefore, Appendix C provides additional known inhibitors that so inhibit the enzyme in amounts disclosed in the application, such that based upon the knowledge in the art and the disclosure in the application, the invention can be practiced by one of skill in the art without undue experimentation.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw the Section 112 rejections: The present application contains both a written description and enablement for the claimed methods, and, one skilled in the art, from the knowledge in the art

and the teachings in the application, can practice the claimed methods, without any undue experimentation, including without any undue experimentation in selecting a suitable inhibitor, and a dose therefore and a route of administration thereof.

**REQUEST FOR INTERVIEW**

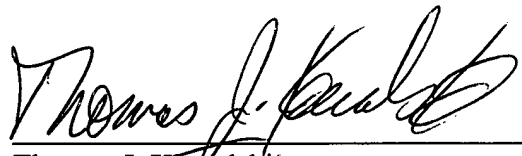
If any issue remains as an impediment to allowance, we respectfully request a personal interview with the Examiner, his SPE, and a Group 1600 Practice Specialist, prior to issuance of any paper other than a Notice of Allowance; and, pursuant to this request the Examiner is also invited to contact the undersigned to arrange a mutually convenient time and manner for such an interview.

**CONCLUSION**

In view of the remarks and enclosures herewith, the application is now in condition for allowance. Consequently, reconsideration and withdrawal of the rejections, and prompt issuance of a notice of allowance, are respectfully requested.

Respectfully submitted,  
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